

IN THE CLAIMS:

Please amend the claims to read as follows.

1. In a method for computing and regulating the distribution of linear load in a multi-nip calender in which a material web is passed through the nips, the nips being defined by a set of rolls arranged in a substantially vertical position and including a variable-crown upper roll, a variable-crown lower roll, the variable-crown upper roll and variable-crown lower roll being structured and arranged to ^{selectively} apply a load to at least two intermediate rolls arranged between the upper roll and the lower roll, said at least two intermediate rolls being provided with support cylinders, all of the rolls in the set of rolls being supported such that, when in nip-defining relationship, the rolls have bending lines which are curved downward, the improvement comprising the steps of:

assigning a value to at least one variable representing a physical property affecting the bending of each of said at least two intermediate rolls, and

regulating at least one of a ratio of linear loads applied to said at least two intermediate rolls, the weight of said at least two intermediate rolls, and support forces applied to said at least two intermediate rolls such that the set of rolls is in a state of equilibrium and a predetermined state of deflection.

781
2. The method of claim 1, wherein step of assigning a value to at least variable representing a physical property affecting the bending of each of said at least two intermediate rolls comprises the step of assigning a value to the bending rigidity, mass, shape, and material of each of said at least two intermediate rolls.

782
11. In an arrangement for computing and regulating the distribution of linear load in a multi-nip calender in which a material web is passed through the nips, the nips being defined by
} a set of rolls arranged in a substantially vertical position and including a variable-crown upper roll, a variable-crown lower roll, the variable-crown upper roll and variable-crown lower roll
5 being structured and arranged to selectively apply a load to at least two intermediate rolls arranged between the upper roll and the lower roll, said at least two intermediate rolls being
7 provided with support cylinders, all of the rolls in the set of rolls being supported such that, when in nip-defining relationship, the rolls have bending lines which are curved downward, the
9 improvement comprising:

an automation system and a computing unit for assigning at least one value to a variable
11 representing a physical property affecting the bending of each of said at least two intermediate rolls and for regulating at least one of a ratio of linear loads applied to said at least two
13 intermediate rolls, the weight of said at least two intermediate rolls, and support forces applied to said at least two intermediate rolls such that the set of rolls is in a state of equilibrium and a
15 predetermined state of deflection.
